

## QUALITY MANAGEMENT INITIATIVES IN AN OPEN AND DISTANCE LEARNING UNIVERSITY

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### ABSTRACT

As an open and distance learning institution, the Open University Malaysia (OUM) needs to ensure that it offers quality services to its learners. A Quality Management System (QMS) was thus established by the Centre for Quality Management and Research & Innovation (CQMRI). The paper describes the initiatives taken to establish the QMS and will detail the Internal Quality Audit process. In addition, it will describe the challenges faced by OUM in managing the four ISO 9001:2000 certified units. IQA determines the governance and control structure in a Quality Management System. The effectiveness of the IQA processes and procedures will be shared. It was found that the introduction of the internal quality audit programmes has increased the level of quality awareness amongst the staff through the internal auditor as an agent. Interviews with the heads and management representatives of the units were conducted to determine the challenges. The findings are expected to be useful to other institutions who are implementing the Quality Management System.

### INTRODUCTION

Open University Malaysia (OUM) is an open and distance learning (ODL) university. It has enrolled 69,672 students with staff strength of about 437 people. The prime ODL institution in Malaysia, OUM's mission statement reads as follow:

*"To widen access to quality education and provide lifelong learning opportunities by leveraging on technology, adopting flexible mode of learning and providing a conducive and engaging learning environment at competitive and affordable cost."*

OUM's implementation of Total Quality Management (TQM) for its operations is based on a three prong approach. The first approach is adherence to regulations set by Malaysian Qualification Agency (MQA). The second approach is by implementing ISO 9001:2000 Quality Management System (QMS) and the third approach is via internal quality assurance.

MQA is a government body that regulates and assures the quality of higher education institutions' programme in the Malaysia. The quality of academic programmes at OUM is assured via adherence to regulations set by MQA. In implementing ISO 9001:2000 QMS, OUM adopts partial certification on four of its units which provide support services. They are the Registry, Tan Sri Dr. Abdullah Sanusi Digital Library (TSDASDL), Centre for Instructional Design and Technology (CIDT) and Centre for Student Management (CSM). The remaining units adhere to internal quality assurance mechanism which is independent from external standards. This multi-faceted approach is continuously improved by regular internal quality audit exercises.

## LITERATURE REVIEW

A Quality Management System (QMS) is an organisational structure that builds on responsibilities, activities, resources (Man, Machine, Material, Money) and events. The structure provides methods and procedures to govern the implementation to ensure an organisation meets quality requirements. A variety of interactions and inputs within an organisation is critical to the success of a QMS. Hence, properly structured QMS ensures the achievement of quality assurance and quality control goals. To set up a QMS, ISO 9001:2000 entails for an organisation to document and describe its capability to supply products and/or services. This activity must be in compliance with the quality standards. In order for it to be successful an organisation must be able to prove that they are capable of providing the products and/or services that conforms to the customer's specification. It also must be able to meet the customer's satisfaction thus achieving the quality goal.

To ensure the success of a QMS, an organisation must (based on Tricker & Sherring-Lucas, 2005):

- Be able to offer products that satisfy a customer's expectations
- Deliver products that comply with the relevant standards and specifications of a contract
- Market products at competitive prices
- Be able to supply products or services at a cost that will still bring a profit to that organisation

Malaysia's higher education institutions need to compete with other local and foreign institutions in providing the best academic programmes and services. The urgency to assure the quality of services is made crucial as the impact of the private higher education institution in Malaysia and their cross-borders partners provided wide access to higher education, reduce outflow of revenue and build local competency, it also raises negative impact such as poor quality programmes, different quality standards, insufficient commitment and monitoring of the delivery by partner institutions, different quality standards to name a few (Zita, 2006).

Many institutions are prompted to assure their service quality through TQM and several other quality assurance standards such as ISO 9000 and Six Sigma. ISO 9000 is used to complement TQM since quality is seen as a process, can be managed and can provide a methodology for continuous improvement (Md. Ariff, Khalifah, Mohd. Omar, Ali, Sulong, 2003). In the case of adopting ISO 9001:2000, efforts to link tasks of the various departments within an organisation resulted in a more coordinated management across the board (Sohail, 2003).

Malaysian Qualification Agency (MQA) is responsible for quality assurance in higher education in Malaysia and to implement The Malaysian Qualification Framework (MQF). MQF classifies and develops qualifications based on agreed learning outcomes and credits. It is intended to enhance clarity and consistency of qualification values and nomenclature, facilitate equivalency and recognition, guides curriculum development, increase academic autonomy, reduces fraudulent practices and most important improves local and foreign confidence of Malaysian qualifications and educational structure (Zita, 2006).

The role of the audit process in products and services, serves to improve the quality of service or intervention by promoting adherence to standards (Paxton, Whitty, Zaatar, Fairbain, Lothian, 2006).

### The Quality Management System At Oum

In 2003 OUM felt that it was necessary to implement TQM to assure quality of its products and services. For this purpose, the Centre for Quality Management and Research & Innovation (CQMRI) was established. CQMRI seeks to engage and promote quality management, research and innovation activities in open and distance learning. The centre was mandated to plan, manage and execute quality assurance activities throughout the university.

In 2004 various efforts were taken to achieve the implementation of ISO 9001:2000 QMS. Quality awareness talks and seminars were held for the entire university. Work procedures or standard operating procedures (SOPs) developed. Internal quality auditors were recruited and trained. In 2005 three units were externally audited and awarded ISO 9001:2000 certification by SIRIM Berhad, the sole national standards development agency appointed by the Department of Standards Malaysia. The units include the Registry, Centre for Instructional Design and Technology (CIDT) and Tan Sri Dr. Abdullah Sanusi Digital Library (TSDAS Digital Library). This was followed by the Centre for Student Management (CSM) being awarded the certificate in 2007.

The QMS model at OUM was designed to focus on the quality assurance. Figure 1 depicts the quality assurance model. The university has adopted a model whereby a quality assurance positioned in the centre of the QMS. Three binding efforts surround the focal point of quality assurance. They are MQF, ISO 9001:2000 and Establishment Audits.

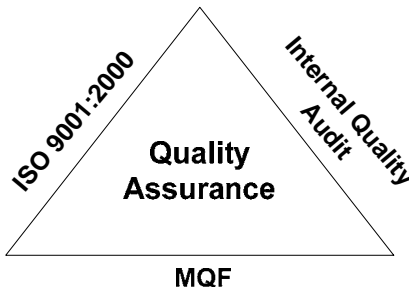


Figure 1. Quality Assurance Model

Figure 2 depicts the ingredients of OUM's Quality Management System (QMS). It includes people, standards, resources and documentation. These elements contribute towards the formation of the QMS. It is constantly surrounded by challenges that need to be dealt with through continuous improvement efforts.

Figure 3 depicts the structure of functional roles in relation to ISO 9001:2000 QMS. At the university level, it is headed by the President/Vice Chancellor as the System Owner and the Senior Vice President as the Management Representative (MR). At unit level such faculties, centres, departments and units within OUM, their respective heads of unit assume the positions as the system owners and the assistants as the MRs. Other non-ISO 9001:2000 certified units are functionally structured in the same way. For this discussion, only the certified units are captured in the figure for illustration purpose.

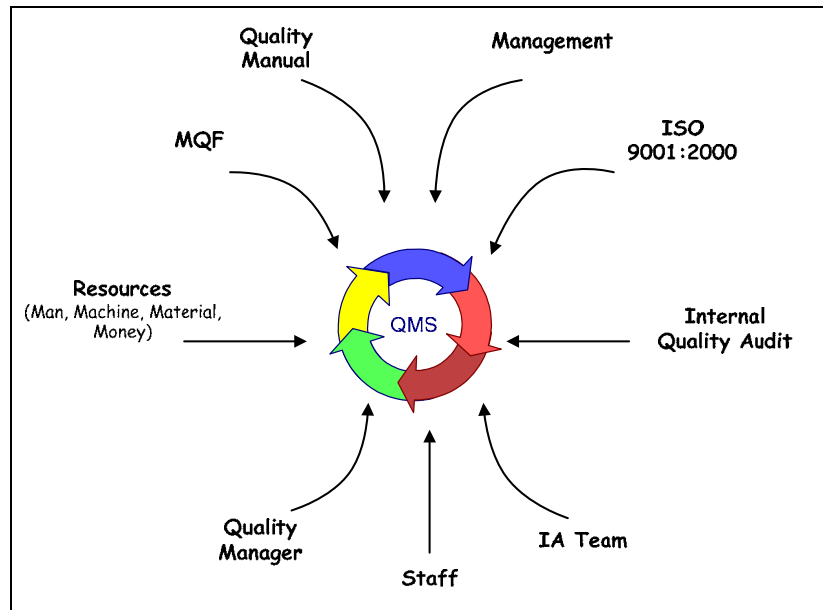


Figure 2. Ingredients of the Quality Management System

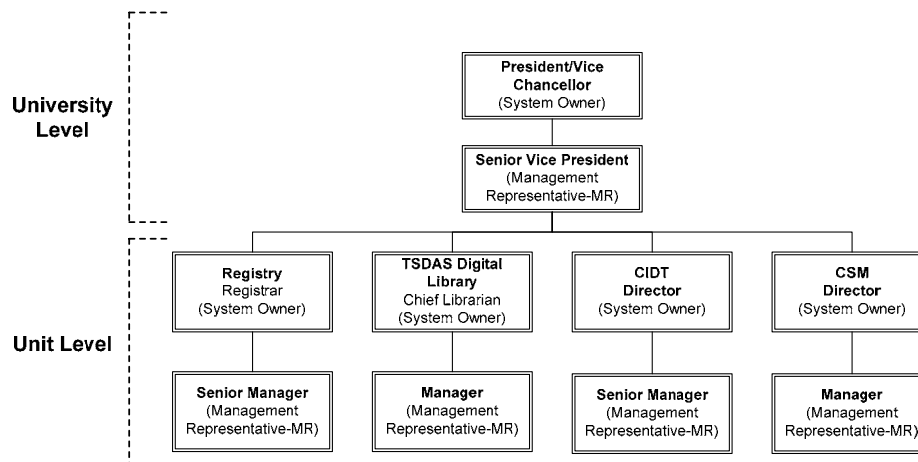


Figure 3. Functional Roles in Relation to ISO 9001:2000 QMS

### Internal Quality Audit Process

As part of OUM's process to continuously assess its internal processes, the internal audit process was outlined together with other ISO 9001:2000 requirements in a document MGT-822-01 Management of Internal Audit, which was endorsed by the management in 2005. It has been the policy of the university to recruit auditors from all level of staff and to have a representative from every department/section within the institution. This is to encourage quality awareness and quality culture throughout the

university. The aim is for the auditor to become the agent and champion of quality at his or her respective department/section. The Audit Group is headed by the Chief Internal Auditor and assisted by a Deputy Chief Internal Auditor.

### **Ia Recruitment Poces**

Steps are taken in recruiting internal quality auditors. A few of the auditors are trained as Lead Auditors (LAs). Initially 10 staff comprising of administrative and academic staff were trained as LAs of the 30 auditors recruited. To date, the total number grew to 63 with a mixture of 20 LAs within the group. All auditors are required to attend a two-day prerequisite intensive training either conducted internally by CQMRI or externally by a third party training organisation. As for LAs, the group has to go through a five day Lead Auditing course conducted by an external party.

In selecting the auditors, the following criteria were used (based on Reid and Ashelby, 2002):

- Be systematic and thorough
- Be independent and impartial
- Be rigorous but not aggressive or confrontational
- Have appropriate background knowledge and work experience
- Have a committed to quality enhancement
- Be good listener
- Be patient and courteous
- Pay attention to detail without being pedantic
- Have the ability to identify good and bad practice
- Have regard for a gender balance

Prior to appointment of auditors, they are to attend the two-day prerequisite training session. Upon successful attendance of the training, they will be appointed as auditors. As a 'novice' auditor he/she will be attached to an audit team which serves as a mentor. The auditor will be part of the audit team and will co-conduct audit with the mentor. This peer guided auditing exercise will improve their learning curves. This ongoing process is replicated every time new appointments of auditors are made.

### **Audit Process**

Typically CQMRI prepares the Yearly Audit Plan of the university at the beginning of every year. Audits are conducted by several teams with at least three auditors led by a Lead Auditor. The team includes at least one new auditor ('novice' auditor). One important aspect of the audit is impartiality. These auditors are assigned to audit a unit other than their own. Following the approval of the Yearly Audit Plan by the President/Vice-Chancellor, the plan is then circulated to all heads of departments and auditors. It is also shown at the OUM website.

Audit Notices are issued by the Director of CQMRI, 15 days prior to the audit date, to the head of unit to be audited. A copy is sent to the President/Vice-Chancellor (as the system owner – university level), the Senior Vice President (MR – university level), the Chief Internal Auditor and the audit team.

A separate communication is sent to the audit team members' head of department to request for permission for his/her subordinate to be relieved for the period of the audit. This is to ensure that there is ample time for the preparation and performance of audit. A pre-audit meeting by the audit team is conducted for the purpose of discussing any issues

arising prior to the audit exercise. It also serves as a point of delegating processes to be audited among the team members. The Lead Auditor plays a major role in communicating with the auditee for any requirements such as documentation request and finalising audit schedule.

During the auditing period, the audit team and the auditee go through the steps of convening an opening meeting, audit conduct and closing meeting. Follow-ups will resume after 14 days of the audit exercise. Subsequently, a report is compiled and submitted to CQMRI for filing and monitoring.

This auditing task is above the auditors existing job scope and no remuneration is given in carrying out the audits. However, the auditor group members appreciate the opportunity to learn and gain extra skills which prove to be valuable for their self-development. Apart from that, recognition to the auditors comes in the form of participation in benchmarking trips or study trips to other organisation – locally and abroad.

### **Challenges**

For this paper, two separate sets of questionnaires were sent to auditors and auditees respectively. The main objective of the questionnaires was to ascertain the challenges faced during the implementation of ISO 9001:2000 QMS leading to the certification. Much could be learnt from the 3 years of experience in implementing the QMS.

Four system owners and MRs from the four ISO 9001:2000 certified departments i.e the Registry, Tan Sri Dr. Abdullah Sanusi Digital Library (TSDAS Digital Library), Centre for Instructional Design and Technology (CIDT) and Centre for Student Management (CSM) had responded to the questionnaires. Their responses are discussed below.

### **Auditee Perspective**

When asked what major challenges they faced throughout the implementation of the system, the following findings were recorded:

- The majority agreed on the importance of ensuring all levels of staff understand and internalise the principles and the mechanisms of ISO 9001:2000.
- The degree of understanding the internal processes by the staff at their respective departments correlated with whether they practiced what was documented.
- Getting staff ‘buy-in’ from within the departments was necessary as part of the inculcation of quality awareness. This requires change management to counter the resistance at the initial stage of implementation.
- With regards to SOP familiarisation training to the process owners, consideration must be given on how effective the training was due to fitting this activity within their hectic operational schedule. Thus, it raised the question of how far the SOPs were followed.
- A greater cooperation and support were expected from external departments that interact with their QMS. This was due to the need to comply with the procedures. Any non-compliance would impact their performance and quality of services provided.

When asked how they ensured the understanding of the procedures and instruction by the staff and how effectively they are implemented, the following findings were recorded:

- Feedback from audit findings either from internal audits or external audits proved to serve as a yardstick of their performance
- Continuous in-house session were held to review and improve the processes
- Continuous monitoring of the tasks related to the documented procedures were carried out
- Self-audits were conducted at least once a year
- The presence of auditors within the staff unit provided a point of reference.

When asked what corrective actions were taken when the documented procedures and instructions were not properly implemented, the answers are as follows:

- Root cause was investigated and corrective actions were devised and carried out
- Discussions and consultations with external departments were held to find solution
- Consultations with CQMRI were held in certain situations when they require independent view as a party outside the unit

When asked if the internal audits conducted facilitate the implementation of ISO 9001:2000 and improve their processes, majority agreed that the audits did facilitate in improving their processes. However, an important note to consider is the need for audits to be conducted by adequately experienced, qualified, competent, well-trained and committed internal auditors. The auditees also stressed the importance of being thorough and paying attention to key improvements as compared to concentrating on trivialities during the audit conduct.

When asked what the changes observed before and after implementing ISO 9001:2000, the following feedback were gathered:

Before the implementation, the following were observed by the auditee:

- Flexibility in running operations resulted into too many changes on the procedures. The inconsistencies rendered quality to be at stake.
- Insufficient resources (Manpower, Machines, Method and Money) to carry out tasks due to unclear task delegation or overlapping tasks assignment. Absence of clear performance indicators made it difficult to justify request for additional resources.

After the implementation, the following changes took place:

- Increased process reliability
- Processes were more organised and manageable
- Increased level of staff awareness about the processes and procedures
- Better work integration and reduction of wastage
- Less error and work duplication which improved employee motivation
- Increased productivity and efficiency
- New processes introduced or some processes eliminated to increase efficiency
- Room for innovation were made, where in some instances, processes were eliminated or other departments were empowered to make decisions
- Increased customer satisfaction



Some examples or instances on changes or improvements given by the departments are captured in Table 1.

**Table 1: Instances of Change (Improvements)**

Department/unit	Instances of Change (Improvements)
Registry	<ul style="list-style-type: none"> <li>Files of new students were created on-site at the learning centres. Before this it was done at the main campus which took a long time due to waiting for the contents to come from the learning centres where learners registered.</li> <li>Decentralisation of Registry functions to learning centres e.g. conditional offer process, open entry process.</li> <li>Time taken to process application had improved.</li> <li>Documents at Academic Unit were well categorised and labelled for ease of retrieval.</li> </ul>
Digital Library	<ul style="list-style-type: none"> <li>Each procedure had its own Key Performance Indicator (KPI) that contributes to the KPI of the individual staff. These KPIs were continuously upgraded every year for improvement.</li> <li>Continuously improving processes and instructions for better result in less time or cost. Documents were reviewed regularly and new documents were drafted to reduce unnecessary process, thus increasing productivity.</li> </ul>
CIDT	<ul style="list-style-type: none"> <li>Improved documentation</li> <li>Systematic flow of work, consistent and no bypassing of steps</li> <li>Improved understanding of the need for quality and what it entails when complying with ISO 9001:2000</li> </ul>
CSM	<ul style="list-style-type: none"> <li>Improved written documentation</li> <li>Processes were more systematic and clear</li> </ul>

### Auditor Perspective

When asked to describe their role as auditors, from the answers it could be seen that they were clear of their role; that is to examine and ensure the work processes in the relevant unit(s) conforms to the requirement set in the ISO 9001:2000 standard and SOPs. They saw themselves as agents of improvements.

When asked to list down the top three most challenges faced as auditor and how these challenges were overcome, the following findings are recorded:

- The commitment as an auditor was seen as a challenge. Auditing works were extra tasks that they had to perform on top of their existing routine job. This resulted into the audit tasks being given a low priority.
- No proper recognition on the effort by auditors. Some auditors were having a perception that the management were not recognising their effort. They perceived that no compensation was given in performing the task. It was also perceived by their superior as unimportant. Some superiors were not clear on how to measure it in the annual performance appraisal. They were under the impression that this effort is not considered by the Staff Evaluation Panel which moderated Staff



Appraisals. As such, there must be a clear and systematic way to include audit work in the Appraisal System.

- Improving the skills and techniques to perform audit was seen as another challenge. Auditors felt that they require more training in order to be efficient at auditing. This is important because auditing competency is crucial in helping auditees to make the most out of the audit exercises.

## CONCLUSION

From the discussion above, it is clear that the internal quality audit process at OUM has contributed substantially towards improving the processes within the university. Much could be drawn as lessons from the challenges faced by CQMRI in coordinating the audit process across the institution and the auditors in carrying out their tasks. The same could be observed from the outcomes of the interviews with the system owner and MR who shared their experience and challenges they faced. It could be seen that the introduction of the internal quality audit programmes has increased the level of quality awareness amongst the staff through the internal auditors as agents.

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